

### Remarks

The present invention relates to a food casing comprising an internal surface coating of a **dried aqueous emulsion** comprising a **polyglyceryl ester**.

The Examiner has rejected Claim 1 as being anticipated by Rose (US 3,834,920).

The rejection should be withdrawn.

Rose discloses a solution of a surfactant in mineral oil using acetylated fatty monoglyceride as a cosolvent. (Column 3, lines 64-66 and claim 1). Rose does not suggest or desire water in his system. Rose's disclosed solution thus clearly does not employ an aqueous emulsion to obtain his food casing and the coating is clearly not a dried aqueous emulsion. The resulting products are clearly significantly different. There is of course much higher percentage of oil in a solution in oil than in an aqueous emulsion. The percentage of oil in Rose's solution is at least 40 percent, see e.g. all of Rose's examples including the only examples of Rose containing a polyglycerol ester (7 and 12 in Table 1). Reference may also be made to claim 1 of Rose in which the primary component is mineral oil with up to 30% emulsifier and sufficient acetylated fatty monoglyceride to dissolve the emulsifier in the mineral oil. According to the examples of Rose (see e.g. Table 1), the amount of mineral oil is never less than 40% and the "sufficient proportion" of polyglycerol monooleate or polyglycerol monostearate is not more than half of that, i.e. 20% or less. The balance of the Rose composition is acetylated fatty monoglyceride. By contrast, no oil at all is required by the pending claims and if oil is present at all, it is present in an amount of less than about 5 weight percent, see e.g. line 1 on page 3 of the present specification and amended Claims 7 and 8.

Further, entirely different distribution and coating properties are obtained when an aqueous emulsion is distributed, i.e. distribution of the dispersed phase occurs in the form of uniformly dispersed emulsified packets protected and defined by emulsifier molecules. Such packets are usually of a size of between 10 and 1000 Angstrom units ( $1 \times 10^{-9} M$ ). The largest size of the range is equivalent to one micron. By contrast, when distribution of solution droplets occurs, as in Rose, the droplet size cannot be expected to be below 20 microns at the smallest end of the range. This results from the product by process limitations of the present claims. The Examiner is referred to MPEP 2173.05(p). **Product by process claims are clearly proper. The physical results of product by process limitations need not be set out and may not be disregarded.** In order to properly reject a product by process claim, the Examiner must cite prior art that "...discloses a product which reasonably appears to be either identical with or only slightly different than a product claimed..." See MPEP 2113. **The Examiner has not met this burden.** The Examiner must do more than simply assert that a different process results in the same product. He must cite some art showing that there is at least an expectation of the same resulting products. This has not been done and therefore the rejection is no more than an unsupported opinion.

**Coatings applied from aqueous emulsion do not have the same coating properties as coatings applied from oil.** One only need to look at the paint industry where for decades there have been diligent efforts to create an aqueous emulsion system that results in coatings having properties of paints applied from oil. The desired result still has not been accomplished. **If the Examiner wishes to retain this rejection, he is challenged to find even a single reference**

**where a coating applied from aqueous emulsion has the same properties as a coating applied from oil.** We do not believe he can do so. The Rose reference, therefore, clearly does not disclose or suggest the present invention as claimed in Claim 1.

Claims 2-4, 9, 11, 13 and 15 have been rejected under 35 U.S.C. 103 as being unpatentable over Rose.

As previously discussed, Rose does not suggest an aqueous emulsion at all, but rather suggests a non-aqueous solution. As previously discussed, application of an oil solution yields an entirely different product than an emulsion in accordance with the invention. Rose therefore does not and cannot suggest the invention of the above claims. Further, Claim 2 requires the presence of from about 10 to about 20 weight percent of a polyhydric alcohol in the emulsion. Rose suggests nothing concerning addition of a polyhydric alcohol in peeling composition. **Further, the dried emulsion of the invention would contain polyhydric alcohol for that purpose, which Rose's compositions would not.** Rose might not be able to add polyhydric alcohol to his compositions even if he were aware of the possibility. Polyhydric alcohols are hydrophilic and are incompatible with oil.

Claim 3 further requires triglyceryltetraoleate. Rose suggests triglyceryltetraoleate for nothing and certainly not in a composition that would aid peeling of food casing.

Claims 7 and 8 require up to 5 percent of low viscosity oil in aqueous emulsion. Rose apparently requires a continuous phase of at least 40% mineral oil. See Table I. Coatings from the entirely different compositions used in the present invention would clearly be different than a

coating from a composition disclosed or suggested by Rose. Rose clearly does not suggest the claimed product.

Remaining Claims 4, 9, 11, 13 and 15 depend from at least one of the above parent Claims 2, 3, 7 and 8 and are patentable for the same reasons as the parent claims.

Claims 1-4 and 9-15 have been rejected under 35 U.S.C. 103 as being unpatentable over U.S. Patent 4,062,981 to Bridgeford in view of U.S. Patent 3,966,632 to Colliopoulos et al.

This rejection is improper both as to the original claims and the claims as amended and should be withdrawn.

Bridgeford '981 does not disclose or suggest the use of a polyglyceryl ester for any purpose. None of the compounds cited by the Examiner, as being disclosed by Bridgeford, is a polyglyceryl ester. Sorbitan trioleate is definitely not a polyglyceryl ester. No advantages are suggested by Bridgeford '981 for using an emulsion of a polyglyceryl ester. There is in fact no suggestion that a polyglyceryl ester would have any utility in the area at all. Bridgeford is not even concerned with peeling but with preventing jamming on a stirring machine. The problems are not the same or even related. Bridgeford therefore clearly does not teach or suggest the present invention.

Colliopoulos et al. similarly is not at all concerned with peeling of food casing and in fact is not concerned with food casing at all. There is no suggestion of incorporating anything into food casing. Colliopoulos is therefore unrelated to Bridgeford '981 which is concerned with jamming of food casing on a stirring machine. There is nothing that Bridgeford '981 and Colliopoulos et al. have in common that could form any reasonable basis for their combination.

Since neither of them suggest anything concerning easily peeled food casing, there is certainly no suggestion in either that would permit their combination for that purpose. This combination of references is thus a classic improper hindsight rejection. Even if the references are combined, they still would not suggest the presently claimed food casing coated with an aqueous emulsion of polyglyceryl ester. The Examiner's statement of equivalence of sorbitan trioleate and polyglyceryl ester has no basis, except based upon improper hindsight using the teachings of the present application, and even if the teachings of the present application are considered, no such equivalence can be found. Sorbitan trioleate is not taught by the present application or any of the references as being equivalent to polyglyceryl ester for any purpose and certainly not to obtain improved peeling of food casing. The rejection should be withdrawn.

Claims 1-15 have been rejected under 35 U.S.C. 103 as being unpatentable over U.S. Patent 4,137,947 to Bridgeford in view of Colliopoulos.

This rejection is improper and should be withdrawn.

Bridgeford '947 does not disclose or suggest the use of a polyglyceryl ester for any purpose. None of the compounds cited by the Examiner, as being disclosed by Bridgeford, is a polyglyceryl ester. No advantages are suggested by Bridgeford for using an emulsion of a polyglyceryl ester. There is in fact no suggestion that a polyglyceryl ester would have any utility in the area at all. Bridgeford therefore clearly does not teach or suggest the present invention. The only esters described are partial fatty acid esters of sorbitan or mannnitan and then they are only described as being required in conjunction with water soluble cellulose ether and water soluble polyalkylene glycol ether. It is hardly a fair teaching of the Bridgeford '947 patent to

extract a single component from the complex Bridgeford composition, which extracted component is not even a polyglyceryl ester and say that the extracted component is equivalent to polyglyceryl ester in the present claims. This is a quantum leap in hindsight logic.

Colliopoulos et al. does not cure the critical defects of Bridgeford '947. Colliopoulos et al. is not at all concerned with peeling of food casing and in fact is not concerned with food casing at all. There is no suggestion of incorporating anything into food casing. Colliopoulos is therefore unrelated to Bridgeford '947 which describes a complex unrelated composition to aid peeling and to prevent machining defects of food casings. There is nothing that Bridgeford '947 and Colliopoulos et al. have in common that could form any reasonable basis for their combination. This combination of references is thus a classic improper hindsight rejection. Even if the references are combined, they still would not suggest the presently claimed food casing coated with an aqueous emulsion of polyglyceryl ester. The Examiner's statement of equivalence of sorbitan trioleate and polyglyceryl ester has no basis, except based upon hindsight using the teachings of the present application and even if the teachings of the present application are considered, no such equivalence can be found. Sorbitan trioleate is not taught by the present application or any of the references as being equivalent to polyglyceryl ester for any purpose and certainly not to obtain improved peeling of food casing. The rejection should be withdrawn.

The allowance of Claims 17, and 19-20 is noted with appreciation. Claims 16 and 18 have been amended to place them in allowable condition.

In view of the foregoing amendments and remarks, it is submitted that all rejections should be withdrawn and that all claims should be allowed, which action is courteously requested.

Respectfully submitted,



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**Version with markings to show changes made**

2. (amended) A [The] food casing [of Claim 1 wherein the coating comprises from about 200 to about 1200 mg per square meter of internal surface of said] comprising an internal surface coating of a dried aqueous emulsion comprising at least one polyglyceryl ester, and from about 10 to about 20 weight percent of dissolved polyhydric alcohol.

3.(twice amended) A food casing comprising an internal surface coating of a dried aqueous emulsion comprising at least one polyglyceryl ester which [The food casing of Claim 2 wherein the] polyglyceryl ester comprises triglyceryltetraoleate.

4. (amended) The food casing of Claim [2] 3 wherein the aqueous emulsion contains from about 1 to about 5 weight percent polyglyceryl ester.

7. (amended) The food casing of Claim [6] 3, wherein the aqueous emulsion additionally contains up to about 5 weight percent of a water insoluble low viscosity oil.

8.(amended) A [The] food casing comprising an internal surface coating of a dried aqueous emulsion comprising at least one polyglyceryl ester [of Claim 7] wherein the aqueous emulsion additionally contains up to about 5 weight percent of a water insoluble low viscosity oil [is selected from the group consisting of soybean oil, cottonseed oil, mineral oil, animal derived oil, and silicon oil].

11. (amended) The food casing of Claim [2] 3 wherein the emulsion contains from about 10 to about 20 weight percent of a polyhydric alcohol.

16.(amended) [The food casing of Claim 3 wherein the] A food casing comprising an internal surface coating of a dried aqueous emulsion comprising polyglyceryl ester which polyglyceryl ester consists essentially of a mixture of triglyceryltetraoleate and triglycerylmonooleate where the amount of triglyceryltetraoleate is greater than the amount of triglycerylmonooleate.

*1.* This paragraph is NOT intended to be commonly used as a substitute for a rejection under 35 U.S.C. 102. In other words, a single rejection under either 35 U.S.C. 102 or 35 U.S.C. 103(a) should be made whenever possible using appropriate form paragraphs 7.15 to 7.19, 7.21 and 7.22. Examples of circumstances where this paragraph may be used are as follows:

- a.* When the interpretation of the claim(s) is or may be in dispute, i.e., given one interpretation, a rejection under 35 U.S.C. 102 is appropriate and given another interpretation, a rejection under 35 U.S.C. 103(a) is appropriate. See MPEP § 2111- 2116.01 for guidelines on claim interpretation.
- b.* When the reference discloses all the limitations of a claim except a property or function, and the examiner cannot determine whether or not the reference inherently possesses properties which anticipate or render obvious the claimed invention but has basis for shifting the burden of proof to applicant as in In re Fitzgerald, 619 F.2d 67, 205 USPQ 594 (CCPA 1980). See MPEP §§ 2112- 2112.02.
- c.* When the reference teaches a small genus which places a claimed species in the possession of the public as in In re Schaumann, 572 F.2d 312, 197 USPQ 5 (CCPA 1978), and the species would have been obvious even if the genus were not sufficiently small to justify a rejection under 35 U.S.C. 102. See MPEP §§ 2131.02 and 2144.08 for more information on anticipation and obviousness of species by a disclosure of a genus.
- d.* When the reference teaches a product that appears to be the same as, or an obvious variant of, the product set forth in a product-by-process claim although produced by a different process. See In re Marosi, 710 F.2d 799, 218 USPQ 289 (Fed. Cir. 1983) and In re Thorpe, 777 F.2d 695, 227 USPQ 964 (Fed. Cir. 1985). See also MPEP § 2113.
- e.* When the reference teaches all claim limitations except a means plus function limitation and the examiner is not certain whether the element disclosed in the reference is an equivalent to the claimed element and therefore anticipatory, or whether the prior art element is an obvious variant of the claimed element. See MPEP §§ 2183- 2184.
- f.* When the ranges disclosed in the reference and claimed by applicant overlap in scope but the reference